Case 2941

Nepa rustica Fabricius, 1781 and *Zaitha stollii* Amyot & Serville, 1843 (currently *Diplonychus rusticus* and *Belostoma stollii*; Insecta, Heteroptera): proposed conservation of the specific names

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Abstract. The purpose of this application is to conserve the specific names of *Diplonychus rusticus* (Fabricius, 1781) from Asia and *Belostoma stollii* (Amyot & Serville, 1843) from the New World. In 1775 Fabricius had applied the name *Nepa rustica* to what was probably *B. stollii*, but in 1781 he changed the description and provenance and used *N. rustica* for the Asian species. It is proposed that the 1775 use of *N. rustica* be suppressed.

1. Fabricius (1775, p. 691) described *Nepa rustica* as follows (translated from Latin): 'N[epa] without tail, body fuscous, unspotted. Inhabits waters in America, common. Similar to preceding but three times smaller. Body entirely fuscous, unspotted, smooth, only femora slightly yellowish'. The preceding species is *N. grandis* Linnaeus, 1758 (now in *Lethocerus*); this measures 90–95 mm in length so the length of *N. rustica* was 30 mm or slightly more. Fabricius did not indicate the collection in which the material was kept, and no type specimens are known. The description fits well several species of the American genus *Belostoma* Latreille, 1807.

2. In the next published reference to *N. rustica* Fabricius (1781, p. 333) gave a reference to his 1775 work, but he changed both the diagnosis and the distribution. He stated that the apex of the head, sides and hind margin of the pronotum and the sides of the hemelytra were pale. He omitted comparison with *N. grandis* and indicated that the species was smaller than any other. He stated that the species was from India ('Habitat in Coromandel. *Mus. Dom. Banks*'). In later works Fabricius (1787, p. 276; 1794, p. 62; 1803, p. 106) repeated in the main his 1781 text, but he did not further cite his 1775 work (an omission also applying to other species described in 1775). The description of *N. rustica* in 1781 and later years fits well the Oriental species now known as *Diplonychus rusticus* (Fabricius). The specimens on which the 1781 description was based, which are listed as type specimens by Zimsen (1964, p. 304), are in the Fabricius collection in the University Zoological Museum, Copenhagen (two specimens) and the Banks Collection at the Natural History Museum, London (two specimens, not one as indicated by Zimsen). They have been examined by one of us (J.T.P.) and belong to the species currently called *Diplonychus rusticus*.

3. Sulzer (1776, p. 92, pl. 10, fig. 2) described and figured a new species *Nepa plana* 'aus Amerika'. His description and figure do not resemble any known American species but closely match *D. rusticus*. Fabricius (1787, p. 276; 1794, p. 62; 1803, p. 106) synonymized *N. plana* with his own *N. rustica* as that was described in 1781.

4. Goeze (1778, p. 177) cited in part Fabricius' original (1775) description of *N. rustica* and added a vernacular name, 'Der Amerikanische Bauer'. Stoll (1780, p. 11, pl. 1, fig. 1) described and figured a belostomatid from Surinam under the name 'Le Paysan Americaine', with a reference to Fabricius (1775). Many years later Amyot & Serville (1843, p. 40), with a reference to Stoll, described a species from 'Cayenne' as *Zaitha stollii*; it is now known as *Belostoma stollii*.

5. Laporte (1833, p. 18) established the genus *Diplonychus* with '*Belostoma rustica* Fab. 106.3' (i.e. *Nepa rustica* of Fabricius (1803, p. 106), where *rustica* was used in the 1781 sense) as the type species by monotypy. On p. 88 of his work, published later the same year (see Harris, 1942), Laporte explained that he used the name *rustica* for the species so called in the later works of Fabricius, whereas the insect described by Fabricius (1775) and by Stoll (1780; see previous para.) as *N. rustica* belonged to another genus, i.e. *Belostoma*. The same observation was published by Herrich-Schaeffer (1849, p. 35) in the synonymy of *Zaitha stollii* Amyot & Serville: '*Nepa rustica*. — F. Syst. Entom. pg. 691 [the 1775 sense], non Ent. Syst. [the 1781 sense]'. Walker (1873, pp. 177, 182) also pointed out that Fabricius had described two species under the name *N. rustica*.

6. To the best of our knowledge, with the exception of Goeze (1778; see para. 4 above) the specific name *rustica* Fabricius has never been applied to an American species, but it has consistently and for more than 200 years been used for the Oriental species known as *Diplonychus rusticus*. We have about 130 references for the use of the name *rusticus* Fabricius for the *Diplonychus* species, 44 of them from the last 50 years (we have given a list of 30 references to the Commission Secretariat). The species is very common in India, and the subject of publications in ecology (Dudgeon, 1990), morphology (Cobben, 1968; Goel, 1972) and biological control of mosquitoes (Raut, 1988; Raut, Saha & Mukhopadhyay, 1988).

7. According to the principle of priority the specific name *rustica* Fabricius, 1775 should be applied to an American *Belostoma* species. This could be *B. stollii* (Amyot & Serville, 1843; see para. 4 above), which has been associated with the name and with which the brief description of Fabricius (1775) is in accord; on the other hand the description fits several species and there is no type material. If the name were applied to an American belostomatid all uses of *rusticus* for the Indian species would become misidentifications; the valid specific name for the latter would be *planus* Sulzer, 1776 (see para. 3 above), even though Sulzer had wrongly given the habitat as 'Amerika' and his name has never been used for any taxon. *Diplonychus* Laporte, 1833 is based on the Indian species (see para. 5 above), although at the time of establishing the genus Laporte failed to say explicitly that he was not using *Nepa rustica* Fabricius in the original sense.

8. The American species has consistently been known as *Belostoma stollii* (Amyot & Serville, 1843); we have given the Commission Secretariat a list of seven references to illustrate this.

9. It is desirable to retain the accepted usage of the name *Diplonychus rusticus* (Fabricius). Since the species was described in 1781 this date should be adopted,

rather than 1775 when *rustica* was used for an American *Belostoma*. One of the specimens in the Banks Collection in London (see para. 2 above) is proposed (Polhemus, 1994, p. 692) as the lectotype of *Nepa rustica* Fabricius, 1781, and it will be so labelled if the present application is approved. Since *Nepa plana* Sulzer, 1776 is an unused senior subjective synonym it should be suppressed. The specific name of *Belostoma stollii* (Amyot & Serville, 1843) will be conserved if *N. rustica* Fabricius, 1775 is suppressed.

10. The International Commission on Zoological Nomenclature. is accordingly asked:

(1) to use its plenary powers:
    (a) to suppress the specific name *rustica* Fabricius, 1775, as published in the binomen *Nepa rustica*, and all uses of that name prior to the publication of *Nepa rustica* Fabricius, 1781, for the purposes of both the Principle of Priority and the Principle of Homonymy;
    (b) to suppress the specific name *plana* Sulzer, 1776, as published in the binomen *Nepa plana*, for the purposes of the Principle of Priority but not for those of the Principle of Homonymy;
(2) to confirm that the type species of *Diplonychus* Laporte, 1843 is *Nepa rustica* Fabricius, 1781 by monotypy;
(3) to place on the Official List of Generic Names in Zoology the name *Diplonychus* Laporte, 1833 (gender: masculine), type species by monotypy *Nepa rustica* Fabricius, 1781, as confirmed in (2) above;
(4) to place on the Official List of Specific Names in Zoology the following names:
    (a) *rustica* Fabricius, 1781, as published in the binomen *Nepa rustica* and as defined by the lectotype proposed by Polhemus (1994) (specific name of the type species of *Diplonychus* Laporte, 1833);
    (b) *stollii* Amyot & Serville, 1843, as published in the binomen *Zaitha stollii*;
(5) to place on the Official Index of Rejected and Invalid Specific Names in Zoology the following names:
    (a) *rustica* Fabricius, 1775, as published in the binomen *Nepa rustica* and as suppressed in (1)(a) above;
    (b) *plana* Sulzer, 1776, as published in the binomen *Nepa plana* and as suppressed in (1)(b) above.

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